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FULL ESTIMATED COST

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FILE COVERS 1907 - 15 Aug 2008 VOL 149 ISS 8 FILE LAST UPDATED: 14 Aug 2008 (20080814/ED)

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=> s us 206028754/pn

L1 0 US 206028754/PN (US206028754/PN)

=> s us 20060128754/pn

L2 1 US 20060128754/PN (US20060128754/PN)

=> sel rn E1 THROUGH E64 ASSIGNED

=> file reg
COST IN U.S. DOLLARS

FULL ESTIMATED COST ENTRY SESSION 5.29 5.50

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=> s e1-e64

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=> d 13 1-YOU HAVE REQUESTED DATA FROM 64 ANSWERS - CONTINUE? Y/(N):y

ANSWER 1 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 698391-62-7 REGISTRY Entered STN: 24 Jun 2004 Butanoic acid, 3-methyl-, [[(1R,3R)-3-(acetyloxy)-3-[4-[[(1R,3S)-1-[(4-CN

2-thiazolyl]-1-(1-methylethyl)propyl][(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]methyl ester (CA INDEX NAME) NAME)
OTHER NAMES:
CN Tubulysin A propylamide
FS STEREOSEARCH
MF C46 H72 N6 09 S
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A Ме

PAGE 1-B

ANSWER 2 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 698391-61-6 REGISTRY

ED Entered STN: 24 Jun 2004

Bencenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1
expensively[[(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4
thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, methyl ester,

(αS,γR)- (CA INDEX NAME)

CTHER NAMES:

CTHER

Absolute stereochemistry.

PAGE 1-A H´ Ме Et

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 1 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 3 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697762-92-8 REGISTRY Entered STN: 23 Jun 2004 Benzenepentanoic acid, 4-(acetyloxy)-y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]-1-oxopentyl](3-methyl-1-STRECOSEARCH C45 H67 N5 Oll S CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A Me_ Ме i-Bu

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ANSWER 4 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 697762-88-2 REGISTRY
ED Entered STN: 23 Jun 2004

Bentered STN: 23 Jun 2004

Bentered STN: 23 Jun 2004

[[(2S,3S)-3-methyl-2-[[(2F)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]([3methyl-1-ancobutoxy)methyl]amino]pentyl]-4
thiazolyl]carbonyl]amino]-α-methyl-4-(2-propen-1-yloxy)-,
2-propen-1-yl ester, (αS,γR)- (CA INDEX NAME).

CTHER CA INDEX NAMES:

CN Bentempentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[((2S,3S)-3-methyl-2-[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1
oxopentyl]([3methyl-1-oxobutoxy)methyl]amino]pentyl]-4
thiazolyl]carbonyl]amino]-α-methyl-4-(2-propenyloxy)-, 2-propenyl
ester, (αS,γR)- (9CI)

FS STEREOSEARCH

MC C49 H73 N5 O10 S

RC CA

LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

ANSWER 5 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697762-87-1 REGISTRY Entered STN: 23 Jun 2004 Benzenepentanoic acid, $\gamma = [[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R),3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-coxopentyl][(3-methyl-1-coxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-methoxy-<math>\alpha$ -methyl-, $(\alpha S, \gamma R)$ - (CA INDEX NAME) STEREOSEARCH C44 H67 N5 010 S CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 4 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 6 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697762-79-1 REGISTRY
Entered STN: 23 Jun 2004
Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R)-3-methyl-2-piperidinyl]carbonyl]amino]-1-copentyl][(3-methyl-1-copointyx)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy- α -methyl-, ethyl ester, (α 5, γ 8)- (CA INDEX NAME)
STEREOSEARCH
C45 H69 N5 010 S
CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

OEt H Me

PAGE 1-B

PAGE 1-A

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ANSWER 7 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697762-78-0 REGISTRY
Entered STN: 23 Jun 2004
Butanoic acid, 3-methyl-, [[(1R,3R)-3-(acetyloxy)-3-[4-[[[(1R,3S)-4-(hexylamino)-1-[(4-hydroxyphenyl)methyl]-3-methyl-4-oxobutyl]amino]carbonyl]-2-thiazolyl]-1-(1-methylethyl)propyl][(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]methyl ester (CA INDEX NAME)
STEREOSEARCH
C49 H78 N6 O9 S
CA CN

STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

(CH2)5 Me_ Н

Ме

PAGE 1-B

PAGE 1-A

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

RN

ANSWER 8 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697762-77-9 REGISTRY Entered STN: 23 Jun 2004 Benzenepentanoic acid, γ =[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R),3S)-3-methyl-2-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy) methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]- α -methyl-4-(2-methyl-1-oxopropoxy)-, (aS, γ R)- (CA INDEX NAME) STEREOSEARCH C47 H71 N5 O11 S CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry. Rotation (+).

PAGE 1-A н Ме

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 7 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) (Continued)

ANSWER 9 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 697751-30-7 REGISTRY

ED Entered STN: 23 Jun 2004

Benrenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((2R,3S)-3-methyl-2-[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1
oxopentyl][(3-methyl-1-oxobutoxy)methyllamino]pentyl]-4
thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, propyl ester,

(αS,γR)- (CA INDEX NAME)

CTHER NAMES:

CTHER N

Absolute stereochemistry.

PAGE 1-A OPr-n Me._ H. Ме Et

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ANSWER 10 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697751-29-4 REGISTRY Entered STN: 23 Jun 2004 Butanoic acid, 3-methyl-, [[(1R,3R)-3-(acetyloxy)-3-[4-[[[(1R,3S)-1-[(4-CN

 $hydroxypheny1) \verb|methy1]-3-methy1-4-oxo-4-[|(phenylmethy1)| amino]| buty1]| amino]| call buty1 | amino]| call bu$

rbonyl]-2-thiazolyl]-1-(1-methylethyl)propyl][(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]methyl ester (CA INDEX NAME)

OTHER NAMES:
CN Tubulysin A benzylamide
FS STEREOSEARCH
MF C50 H72 NG 09 S
R CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry. Rotation (+).

PAGE 1-B

ANSWER 11 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 697236-88-7 REGISTRY
ED Entered STN: 22 Jun 2004
CD Bencenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R,3S)-3-methyl-2-piperidinyl]carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-4-methoxy-α-methyl-, methyl ester,
(αS,γR)- (CA INDEX NAME)
CTHER NAMES:
CTHER NAMES:
CTHER NAMES:
CT TUBULYSIN A methyl ether methyl ester
FS STEREOSEARCH
MF C45 R69 N5 C10 S
RC CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-B



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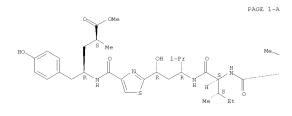
L3 ANSWER 10 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 12 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-87-6 REGISTRY
Entered STN: 22 Jun 2004
Benzenepentanoic acid, 4-hydroxy-y-[[2-[(1R,3R)-1-hydroxy-4-methyl-3-[([2R,3R)-1-methyl-2-l[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]aminojpentyl]-4-thiacolyl]carbonyl]aminoj-a-methyl-, methyl ester, (GS,YR)- (CA INDEX NAME)
STERROSEARCH C36 B5 NS O7 S
CA
STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.



PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ANSWER 13 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-86-5 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R,3S)-3-methyl-2-[[((2R)-1-methyl-1-oxido-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (uS,yR)- (CA INDEX NAME) STEREOSEARCH C43 H65 N5 Oll S CA CN

CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A Me H.

PAGE 1-B

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

RN

ANSWER 15 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-84-3 REGISTRY COPYRIGHT 2008 ACS on STN 697236-84-3 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, $\gamma = [[(2R)-1-\text{methyl}-2-\text{piperidinyl}]-a-\text{methyl}-3-[[(2R)-1-\text{methyl}-2-\text{piperidinyl}]-a-\text{methyl}-2-\text{piperidinyl}]-a-\text{methyl}-1-\text{acobutyl}]-a-\text{methyl}-1-\text{methyl}-1-\text{mizacolyl}]-a-\text{methyl}-1-\text{meth$

Absolute stereochemistry.

PAGE 1-A Me_ н Ме Εt i-Bu

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

RN

ANSWER 14 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-85-4 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, $\gamma=\lceil \lfloor (2R)-1-\text{nethyl}-2-\text{piperidinyl} \rfloor$ carethyl-2- $\lfloor \lfloor (2R)-1-\text{nethyl}-2-\text{piperidinyl} \rfloor$ carethyl-2- $\lfloor (2R)-1-\text{nethyl}-2-\text{piperidinyl} \rfloor$ carethyl-1-acopentyl] $\lfloor (3-\text{methyl}-1-\text{noxobutoxy})$ methyl-3-mitro-, $(\alpha S, \gamma R) = (CA \text{ INDEX NAME})$ STEREOSEARCH C43 H64 N6 O12 S CA CN

FS MF SR LC

STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 16 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-83-2 REGISTRY
Entered STN: 22 Jun 2004
Benzenepentanoic acidd, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R),3S)-3-methyl-2--[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-copentyl][(3-methyl-1-copobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-3-iodo-α-methyl-, (GS,γR)- (CA INDEX NAME)
STEREOSEARCH
C43 H64 I N5 O10 S
CN
STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

Me_ H Me

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ANSWER 17 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-82-1 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, $y-[[2-[(1R,3R)-1-(acetyloxy)-3-[(ethoxymethyl)](28,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]-4-methylpentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-<math>\alpha$ -methyl-, (α S,yR)-STERCOSEARCH C40 H61 N5 O9 S CA CN

STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 18 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-81-0 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, 4-hydroxy-α-methyl-γ-[[[2-[(4R,6R)-tetrahydro-4-(1-methylethyl)-3-[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-, -oxopentyl]-2H-1,3-oxazin-6-yl]-4-thiazolyl]carbonyl]amino]-, (αS,γR)- (CA INDEX NAME) C36 H53 N5 O7 S CA CN

CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

RN

ANSWER 19 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-80-9 REGISTRY Entered STN: 22 Jun 2004 Benrenepentanoic acid, 4-hydroxy-y-[[[2-[(1R,3R)-1-hydroxy-4-methyl-3-[((2R,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-n-oxpentyl]amino]entyl]-4-thiazolyl]carbonyl]amino]-q-methyl-, (GS, yR)- (CA INDEX NAME) STEREOSEARCH C35 B33 N5 O7 S CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

FS MF SR LC

Absolute stereochemistry. Rotation (-).

PAGE 1-A

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 20 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN 697236-78-5 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, 4-hydroxy- γ -[[[2-[(1R, 3R)-1-hydroxy-4-methyl-3-[([2S, 3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy]methyl]amino]pentyl]4-thiazolyl]carbonyl]amino]- α -methyl-, (α S, γ R)- (CA INDEX NAME) STEREOSEARCH C41 H63 N5 O9 S CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A Me_ H Me

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ANSWER 21 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-77-4 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, y=[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (GS,YR)- (CA INDEX NAME) STEREOSEARCH C37 H55 N5 O8 S CA CN

CA STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry. Rotation (-).

PAGE 1-A

PAGE 1-B

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 23 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 368870-67-1 REGISTRY Entered STN: 12 Nov 2001 Benzenepentanoic acid, γ =[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

oxopentyl][(1-oxopropoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]a-methyl-, (aS,yR)- (CA INDEX NAME)
CTHER NAMES:
CN Tubulysin F
SSTEREOSEARCH
MF C41 H61 N5 09 S
SR CA

CA STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

RN

ANSWER 22 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 697236-76-3 REGISTRY Entered STN: 22 Jun 2004 Benzenepentanoic acid, y-[[[2-[(1R,3R)-1-(acetyloxy)-3-[(hydroxymethyl)[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]-4-methylpentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy- α -methyl-, (α S, yR)- (CA INDEX NAME) STEREOSEARCH C38 B57 N5 O9 S CA CN

FS MF SR LC

STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry. Rotation (-).

PAGE 1-A

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 24 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 309955-58-8 REGISTRY

ED Entered STN: 20 Dec 2000

Benzenepentanoic acid, y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1
oxopentyl][(1-oxobutoxy) methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]
G-methyl-, (aS,yR)- (CA INDEX NAME)

CTHER NAMES:

CN Tubulysin E
SSTREOSEARCH

MF C42 H63 NS O9 S
R C4
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

7 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 25 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 309935-57-7 REGISTRY Entered STN: 20 Dec 2000 Benzenepentanoic acid, $\gamma - [[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R),3S)-3-methyl-2-[[(2R)-1-methyl-2-piperiddinyl]carbonyl]amino]-1-copentyl][(3-methyl-1-copointyl]amino]entyl]-4-thiazolyl]carbonyl]amino]-\alpha-methyl-, (\alphaS,\gammaR) (CA INDEX NAME)$

NAME)
CTHER NAMES:
(1) - Tubulysin D
CT tubulysin D
FS STEREOSEARCH
MF C43 H65 N5 09 S
FC CA
LC SIN Files: BIOSIS, CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

Absolute stereochemistry. Rotation (+).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 12 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 26 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 205304-88-7 REGISTRY Entered STN: 10 May 1998 Benzenepentanoic acid, γ =[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-[[(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-CN

oxopentyl][(1-oxopropoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]4-hydroxy-α-methyl-, (αS,γR)- (CA INDEX NAME)

OTHER NAMES:
CN Tubulysin C
FS STEREOSEARCH
MF C41 H61 N5 010 S
R CA

CA STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A Н Me

PAGE 1-B

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

5 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

L3 ANSWER 26 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 5 REFERENCES IN FILE CAPLUS (1907 TO DATE) (Continued)

ANSWER 27 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 205304-87-6 REGISTRY Entered STN: 10 May 1998 Benzenepentanoic acid, γ =[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-[[(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

oxopentyl][(1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-a-methyl-, (aS,yR)- (CA INDEX NAME)

CTHER NAMES:
CN Tubulysin B
FS STEREOSEARCH
MF C42 R63 NS 010 S
RC CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

Me_ Ме

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
ANSWER 28 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 205304-86-5 REGISTRY
ED Entered STN: 10 May 1998
CD Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-
[[(2S,SS)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-
oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-
thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (αS,γR)-
(CTHER NAMES:
CTHER NAMES
```

PAGE 1-A

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 REFERENCES IN FILE CA (1907 TO DATE) 5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

ANSWER 29 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 130433-70-4 REGISTRY

ED Entered STN: 16 Nov 1990

Dyidinium, 2,3,4,5,6-pentachloro-1-fluoro-, salt with

trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CTHER CA INDEX NAMES:

CN Methanesulfonic acid, trifluoro-, ion(1-), 2,3,4,5,6-pentachloro-1
fluoropyridinium

CTHER NAMES:

CN 1-Fluoro-2,3,4,5,6-pentachloropyridinium triflate

CN 1-Fluoropentachloropyridinium triflate

CN N-Fluoropentachloropyridinium triflate

MF C5 C15 F N . C F3 O3 S

CA

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMEX, TOXCENTER,

USPATFULL

(*File contains numerically searchable property data)

CM 1

CRN 130433-69-1

CMF C5 C15 F N

F-C-so3-

CM 2

CRN 37181-39-8 CMF C F3 03 S

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

13 REFERENCES IN FILE CA (1907 TO DATE)
13 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 28 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
15 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
ANSWER 30 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN
RN 114615-82-6 REGISTRY
ED Entered STN: 28 May 1938
CN 1-Propanaminium, N.N.N-tripropyl-, (T-4)-tetraoxoruthenate(1-) (1:1) (CA INDEX NAME)
CTHER CA INDEX NAMES:
CN 1-Propanaminium, N.N.N-tripropyl-, (T-4)-tetraoxoruthenate(1-) (9CI)
CN Ruthenate (Ru041-), (T-4)-, N.N.N-tripropyl-1-propanaminium (9CI)
CTHER NAMES:
CN Tetra-n-propylammonium perruthenate
CN Tetrapropylammonium perruthenate
CN Tetrapropylammonium tetraoxoruthenate(1-)
Tetrapropylammonium tetraoxoruthenate(1-)
M C12 E28 N . 04 Ru
SR CAS Client Services
CSIN Files: BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMEX,
CHEMLIST, CSCHEM, MEDLINE, TOXCENTER, USPAT2, USPATFULL

CM 1
CRN 14333-21-2
CMF 04 Ru
CCI CCS

CM 2
CM 2
CRN 13010-31-6
CMF C12 H28 N

N-Pr
N-Pr-N+Pr-n
n-Pr
N-Pr-N+Pr-n
1-Fr

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

166 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CA (1907 TO DATE)
166 REFERENCES IN FILE CA (1907 TO DATE)
167 REFERENCES IN FILE CA (1907 TO DATE)
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```
ANSWER 32 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN RN 26412-87-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Pyridine, compd. with sulfur trioxide (1:1) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pyridine, compd. with SO3 (6CI, 7CI)
CN Sulfur trioxide, compd. with pyridine (1:1) (9CI)
OTHER NAMES:
CN NSC 75831
                                   ANSWER 31 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 38078-09-0 REGISTRY Entered STN: 16 Nov 1984 Sulfur, (K-ethylethanaminato)trifluoro-, (T-4)- (CA INDEX NAME)
    CN Sultur, (N-ethylethanamings),
OTHER CA INDEX NAMES:
CN Ethanamine, N-ethyl-, sulfur complex
                             Ethanamine, N-ethyl-, sulfur complex Ethanamine, N-ethyl-, sulfur complex Et NAMES:

(Diethylamino) sulfur trifluoride
(Diethylamino) trifluorosulfur
(N,N-Diethylamino) sulfur trifluoride
DAST
(DAST | DAST | DAST
       OTHER NAMES:
CN (Diethy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sulful trioxide, compar. with pyraths (17).

R NAMES:

NSC 75831

Pyriddine sulfur trioxide (1:1)

Pyriddine-sulfur trioxide complex

Pyriddine-sulfur trioxide complex

Pyriddine-sulfur trioxide complex (1:1)

Sulfur trioxide-pyridine

C5 H5 N. 03 S

STN Files: AGRICOLA, BELISTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMEN, CHEMLIST, CSCHEM, GMELIN*, MSDS-OHS, SPECINFO, TOXCENTER, USPATZ, USPATFULL, USPATCOLD

(*File contains numerically searchable property data)

Other Sources: EINECS**, NDSL**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CRN 7446-11-9
CMF 03 S
         **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CM 2
                                                                                  628 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
631 REFERENCES IN FILE CAPLUS (1907 TO DATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CRN 110-86-1
CMF C5 H5 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          207 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
207 REFERENCES IN FILE CAPLUS (1907 TO DATE)

9 REFERENCES IN FILE CAPLUS (PRIOR TO 1967)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L3 ANSWER 34 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 25895-60-7 REGISTRY
ED Entered STN: 16 Nov 1984
CN Borate(1-), (cyano-KC)trihydro-, sodium (1:1), (T-4)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Borate(1-), (cyano-C)trihydro-, sodium, (T-4)- (9CI)
CN Borate(1-), (cyano-C)trihydro-, sodium, (T-4)-
CN Borate(1-), (cyano-C)trihydro-, sodium, (T-4)-
CN Borate(1-), (cyanorihydro-, sodium (8CI)
OTHER NAMES:
CN Sodium borocyanohydride
CN Sodium cyanotrihydroborate
CN Sodium cyanot
EDC (coupling agent)
EDC (coupling agent)
EDC1
N-(3-Dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride
N-2thyl-N'-(3-dimethylaminopropyl)carbodiimide hydrochloride
                                   N=CITYI-N - (3-dimetry aminispropy))/carbodimide hydrochloride

[3-(Dimethylamino)propy]]ethylcarbodiimide hydrochloride

7084-11-9

93128-40-6

08 H17 N3 . Cl H
   CI CCM

LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT IFIUDB, MSDS-OHS, KTECS*, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL (*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

CRN (1892-57-5)
                                   COM
      Et - N == C == N -= (CH2) 3 -= NMe2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1048 REFERENCES IN FILE CA (1907 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1052 REFERENCES IN FILE CAPLUS (1907 TO DATE)
                                                                   • HCl
      **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
                                                                          2140 REFERENCES IN FILE CA (1907 TO DATE)
82 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2150 REFERENCES IN FILE CAPLUS (1907 TO DATE)
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L3 ANSWER 35 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 20667-12-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Silver oxide (Ag20) (CA INDEX NAME)
OTHER NAMES:
CN Argentous oxide
CN Disilver monoxide
CN Disilver oxide
CN Silver oxide
CN Silver oxide
CN Silver oxide
CN Silver(I) oxide
DI 1302-04-1
MF Ag2 0
LC STN Files: AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, DETHERM*, CASREACT, CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, DETHERM*, FEMBASE, CMELIN*, IFICOB, IFIPAT, IFIUDB, MEDLINE, MCRC*, MSDS-OHS,
PIRA,
PROMT, RIECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

Ag-O-Ag

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

7865 REFERENCES IN FILE CA (1907 TO DATE)
96 REFERENCES IN FILE CAPLUS (1907 TO DATE)
13 REFERENCES IN FILE CAPLUS (1907 TO DATE)
13 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
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L3 ANSWER 37 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN

RN 7791-25-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Sulfcuryl chloride (CA INDEX NAME)
OTHER NAMES:
CN Sulfonyl chloride
CN Sulfonyl chloride
CN Sulfur chloride oxide (SC1202)
CN Sulfur chloride oxide (SC2012)
CN Sulfur oxychloride (SC2012)
CN Sulfur oxychloride
CN Sulfuric oxychloride
CN Sulfuric oxychloride
CN Sulfuric oxychloride
CN Sulfuryl dichloride
CN Sulfuryl dichloride
CN Sulfuryl chloride
CN Sulfuryl chloride
CN Sulfuryl chloride
CN Sulphuryl chloride
CN Sulfur oxychloride
CN Sul
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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2653 REFERENCES IN FILE CA (1907 TO DATE)
54 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2656 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAPLU (PRIOR TO 1967)
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ANSWER 36 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN
RN 9013-79-0 REGISTRY
ED Entered STR: 16 Nov 1984
CN Esterase (CA INDEX NAME)
CTHER NAMES:
CN Ester hydrolase
CN Estera before
CN Trizym RX 3
DR 9035-77-2
MF Unspecified
CI CCM, MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS,
CASREACT, CENE, CIN, CSCHEM, CSNB, EMBASE, IFICDE, IFIPAT, IFIUDE, IPA
MEDLINE, NAPRALERT, PIRA, PROMT, TOXCENTER, ULIDAT, USPAT2, USPATFULL,
USPATOLD
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

14015 REFERENCES IN FILE CA (1907 TO DATE)
138 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
14022 REFERENCES IN FILE CAPLUS (1907 TO DATE)
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ANSWER 38 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 7790-99-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Iodine chloride (IC1) (CA INDEX NAME)
CTHER NAMES:
CN Chlorine iodide
CN Chlorine iodide
CN Iodine chloride
CN Iodine chloride
CN Iodine chloride
CN Iodine monochloride
CN Iodine (1) chloride
CN Iodononchloride
CN Iodononchloride
CN Iodononchloride
CN Iodonium chloride
CN Iodonium chloride
CN Iodonium chloride
CN Ed STN Files: AGRICOLA, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB,
CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE,
CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE,
FRCMT,
FS, RIECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Cher Sources: BSL**, EINECS*, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
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C1-I

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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2303 REFERENCES IN FILE CA (1907 TO DATE)
40 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2305 REFERENCES IN FILE CAPLUS (1907 TO DATE)
37 REFERENCES IN FILE CACLD (PRIOR TO 1967)
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LI ANNUER 39 OF 64 RECISTRY COPYRIGHT 2008 ACS on STN
N 7664-17-7 REDISTRY
ED Entered STN: 16 Nov 1994
CN Ammonia Gas
CTERT NAMES:
CTER
```

```
L3 ANSWER 41 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 7632-00-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Nitrous acid, sodium salt (1:1) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Nitrous acid, sodium salt (8CI, 9CI)
OTHER NAMES:
CN Anti-Rust
CN E 250
CN Erinitrit
CN Filmerine
CN M 138C
CN Nitrous Acid Soda
CN Sodium nitrite
CN Sofium nitrite
CN Sofiu
```

● Na

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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14298 REFERENCES IN FILE CA (1907 TO DATE)
89 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
14326 REFERENCES IN FILE CAPLUS (1907 TO DATE)
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L3 ANSWER 42 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 7553-56-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Iodine (CA INDEX NAME)
CTHER NAMES:
CN Actomar
CN DentaPure DP 90
CN Diatomic iodine
CN Diiodine
CN Diiodine
CN Diiodine
CN Iodine (12712)
CN Iodine colloidal
CN Iodine colloidal
CN Iodine colloidal
CN Iodine molecule (12)
CN Iodine molecule (12)
CN Iodine sublimed
CN Iosan Superdip
CN Iodosan
CN Molecular iodine
CN NSC 42355
CN Tegodyne
B 8012-81-5, 8012-85-9, 8031-47-8, 24503-90-0
MF 12
CC CCM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS,
BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CENBE, CHEMINFORMEX,
CHEMIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDTU, DETHERM*, DRUGU, EMBASE,
ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPPAT2, CMELIN*, HSDB*, FIFCDB,
IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-058, NAPRALBERT, PHAR,
PROWI, RIECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU
(**Enter CHEMLIST File for up-to-date regulatory information)
```

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

65282 REFERENCES IN FILE CA (1907 TO DATE)
3893 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
65361 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
ANSWER 43 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 7440-44-0 REGISTRY Entered STN: 16 Nov 1984 Carbon (CA INDEX NAME)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L3 ANSWER 43 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN (Continued) ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISPLAY
798556-12-4, 798556-14-6, 12789-22-9, 130960-03-1, 67167-41-3,
114680-00-1, 37196-29-5, 137322-21-5, 76416-61-0, 82600-58-6, 83138-28-7,
90452-98-5, 26837-67-2, 39422-04-3, 39434-34-9, 116788-82-0, 208519-32-8,
208728-20-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DR
CN CATEGO TOTHER NAMES: CN 1262837 CN 207A CN 207A CN 207B CN 209B CN 3GX CN 4GM CN 6G6897 CN 7144EL CN AC 01 CN AC 10 CN ACTICAL 
                                             1262R97
207A
207A (carbon)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCM
STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CRUB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, HSDB*, IFICOB, FIFAT, IFIUDB, IMSCOSBARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, FIRA, PROMT, KTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL

(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
                                             3GX
4GCX
4GM
606897
71448L
AC 01
AC 01 (adsorbent)
AC 100
AC 100 (adsorbent)
AC 40
                                           AC 100 (adsorbent)
AC 40
AC 40 (adsorbent)
ACP-W
Acticarbon 25K
Acticarbon ENO
Acticarbon TK
Actitex CS 1501
Actitex SC 1501
Actitex WWP 3
Activated carbon
Active carbon beads
Advanced Fatterning Film
AG 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              379159 REFERENCES IN FILE CA (1907 TO DATE)
15361 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
379835 REFERENCES IN FILE CAPLUS (1907 TO DATE)
18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
                                             AG 2
AG 2 (catalyst support)
AG 2-4
     CN
CN
                                           AG 2-4
AG 3
AG 3 (adsorbent)
AG 5
AG 5 (adsorbent)
AG 95
AG 95 (carbon)
       CN
                                               AG-M (carbon)
       CN
                                               AG-OV 1
       CN
                                                 AGN 1
AGN 1 (carbon)
                                                 AGN 2
                                               AGN 2 (carbon)
                                               AGN 3
                                                 AGS 4 (adsorbent)
                                                 AK (adsorbent)
                   3 ANSWER 44 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
N 7440-05-3 REGISTRY
D Entered STN: 16 Nov 1984
N Palladium (CA INDEX NAME)
THER NAMES:
N E 1010/W
N IG 0218A
N MPP 030
N MPP 050
N MPP 050
N MPP 050
N P 50
N 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ANSWER 45 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 1333-74-0 REGISTRY Entered STN: 16 Nov 1984 Hydrogen (CA INDEX NAME) Dihydrogen Hydrogen (H2) Hydrogen molecule Mol. hydrogen Molecular hydrogen Octhohydrogen Parahydrogen Parahydrogen Parahydrogen Parahydrogen Portium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Farahydrogen
Protium
725200-57-7
H2
CCM
STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA,
CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMEX, CHEMLIST,
CHEMSARE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT,
ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB,
IMSCOSEARCH, IPA, MEDLINE, MECK*, MSDS-OHS, PIRA, PROMT, RTECS*,
SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, USPATOLD
('File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
                                             COM
SIN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA,
CAPLUS, CASREACT, CRNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,
CSNB, DDFU, DETHERM*, DRUGU, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
MSDS-OHS, PIRA, PROMIT, RIECS*, TOXCENTER, TULSA, ULIDAT, USPAT2,
USPATFULL
(15)16 CONTAINS THE PROMIT OF T
                                                                               SPATFULL

(*File contains numerically searchable property data)

er Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
       Pd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **
       **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345658 REFERENCES IN FILE CA (1907 TO DATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3896 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
346105 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CADLD (PRIOR TO 1967)
                                                                                 103918 REFERENCES IN FILE CA (1907 TO DATE)
7607 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
104006 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

```
L3 ANSWER 46 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN RN 1310-73-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Sodium hydroxide (Na(OH)) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Sodium hydroxide (8CI)
OTHER NAMES:
CN Aetznatron
CN -
                                 R NAMES:
Aetznatron
Ascarite
Caustic soda
Collo-Grillrein
Collo-Tapetta
                                 Collo-Tapetta E 33 (degreasing agent) FC 4370 GR GR (alkali reagent) MO 67 NSC 135799 Soda, caustic StamperPrep Tosoh Pearl White caustic S012-01-9 H Na O COM STN Files: ADISNEWS, A CABA, CAOLD, CAPLUS, C
                                   COM
STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA,
CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMEX, CHEMLIST,
CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGG, EMBASE, ENCOMPLIT,
ENCOMPLITZ, ENCOMPPAT, ENCOMPPAT2, CMELIN*, HSDB*, IFICDB, IFIPAT,
IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, PATDPASPC, PIRA, PROMT, RIECS*,
SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPATZ, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
```

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT **

Na-OH

102404 REFERENCES IN FILE CA (1907 TO DATE) 583 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 102767 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
L3 ANSWER 48 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN
RN 937-14-4 REGISTRY
D Entered STN: 16 Nov 1984
CN Benzenecarboperoxoic acid, 3-chloro- (CA INDEX NAME)
OTHER CA RINDEX NAME:
CN Peroxybenzoic acid, m-chloro- (7CI, 8CI)
OTHER NAMES:
CN 3-Chlorobenzenecarboperoxoic acid
CN 3-Chlorobenzenecarboperoxoic acid
CN 3-Chloroperoxybenzoic acid
CN m-Chloroperoxybenzoic acid
CN m-Chloroperoxybenzoic
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
2643 REFERENCES IN FILE CA (1907 TO DATE)
52 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2649 REFERENCES IN FILE CAPLUS (1907 TO DATE)
19 REFERENCES IN FILE CAPLUS (1907 TO 1967)
```

```
L3 ANSWER 47 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN RN 1122-58-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4-Pyridinamine, N,N-dimethyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pyridine, 4-(dimethylamino)- (6CI, 7CI, 8CI)
OTHER NAMES:
                                              R NAMES:
γ-(Dimethylamino)pyridine
4-(Dimethylamino)pyridine
                                            DMAP (catalyst)
N,N-Dimethyl-4-aminopyridine
N,N-Dimethyl-4-pyridinamine
p-Dimethylaminopyridine
C7 H10 N2
                                                   STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO,
                                              CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IFA, MEDLINE, MERC*, MSDS-OHS, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, USPATCUL, USPATCUL, USPATCUL, USPATCUL, USPATCUL, USPATCUL, USPATCUL, OF CASTAIN CONTROL OF CONTROL
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4150 REFERENCES IN FILE CA (1907 TO DATE)
104 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4187 REFERENCES IN FILE CAPLUS (1907 TO DATE)
23 REFERENCES IN FILE CAPLUS (PRIOR TO 1967)

```
L3 ANSWER 49 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN
RN 543-27-1 REGISTRY
D Entered STN: 16 Nov 1984
CN Carbonochloridic acid, 2-methylpropyl ester (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Formic acid, chloro, isobutyl ester (6CI, 7CI, 8CI)
OTHER NAMES:
CN 2-Methylpropyl carbonochloridate
CN 2-Methylpropyl chloroformate
CN Chlorocarbonic acid isobutyl ester
CN Chloroformic acid isobutyl ester
CN ISCT
CN Isobutyl carbonochloridate
CN Isobutyl carbonochloridate
CN Isobutyl chloroformate
CN Isobutyl chlorofor
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1770 REFERENCES IN FILE CA (1907 TO DATE)
18 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1774 REFERENCES IN FILE CAPLUS (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO 1967)

```
L3 ANSWER 50 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 334-88-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Methane, diazo- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Azimethylene
CN Diazomethane
CN Diazomethane
CN Diazomethane
CN Diazomethylide
BR 463-60-5, 16835-99-7, 62024-16-2
MT C H2 N2
CI CCM
CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMEX, CHEMLIST, CHEMSAFE,
CNN,
CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLITZ, ENCOMPPAT,
ENCOMPPAT2, CMCLIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,
MRCK*,
MRSDS-OHS, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, USPAT2,
USPATFULL, USPATOLD

(*File contains numerically searchable property data)
Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

4606 REFERENCES IN FILE CA (1907 TO DATE)
86 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1307 TO DATE)
```

```
L3 ANSWER 52 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 123-31-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1,4-Dioxane (CG1)
OTHER CA INDEX NAMES:
CN p-Dioxane (8G1)
OTHER NAMES:
CN 1,4-Dioxin, tetrahydro-
Diethylene dioxide
CN 1,4-Dioxin, tetrahydro-
Diethylene ether
CN Diethylene ether
CN Diethylene ether
CN Dioxane
CN BECOMPARAMANESTRA GUIER, BEILSTEIN*, BIOSIS, BIOTECHNO, CA,
CHAMSAFI, CIN, CSCHEM, CSNB, DETHERM*, EMBASE, ENCOMPLIT, ENCOMPLIT2, EN
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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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19571 REFERENCES IN FILE CA (1907 TO DATE)
419 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
19605 REFERENCES IN FILE CAPLUS (1907 TO DATE)
9 REFERENCES IN FILE CACLD (PRIOR TO 1967)

```
ANSWER 51 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 128-08-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2,5-Pyrrolidinedione, 1-bromo- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Succinimide, N-bromo- (8C1)
OTHER NAMES:
N-Bromosuccinimide
N-Bromosuccinimide
N-Bromosuccinimide
N-BS NSC 16
CN Succinbrominide
N Succinbrominide
Succinbromin
```

5388 REFERENCES IN FILE CA (1907 TO DATE)
62 REFERENCES TO NOM-SPECIFIC DERIVATIVES IN FILE CA
5413 REFERENCES IN FILE CAPLUS (1907 TO DATE)
14 REFERENCES IN FILE CAPLU (PRIOR TO 1967)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
L3 ANSWER 53 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN
RN 121-44-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Triethylamino (7CI, 8CI)
OTHER NAMES:
CN (Diethylamino)ethane
CN (Diethylamino)ethane
CN TEA
R75054-56-8, 449752-61-8, 168277-99-4, 172227-74-6, 144514-14-7
MF C6 H15 N
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO,
CA,
CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMEX, CHEMLIST,
CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCCMPLIT,
ENCCMPLIT2, ENCCMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT,
IFICDB, IFA, MEDLINE, MRCK*, MSS-OHS, NAPALBERT, PIRA, FROMT,
RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2,
USPATIFUL

('File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

Et
Et—N—Et

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

26814 REFERENCES IN FILE CA (1907 TO DATE)
1185 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CALDU (RIGOT TO 1967)
```

```
ANSWER 54 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN 110-86-1 REGISTRY Entered STN: 16 Nov 1984 Pyridine (CA INDEX NAME)
   OTHER NAMES:
                      .R NAMES:
Azabenzene
Azine
CP 32
NSC 141574
NSC 406123
857961-06-9, 733733-47-6, 6999-00-4, 163392-20-9, 62301-32-0,
DR 85/961-04-9, 733/33-4/-6, 6393-00-4, 16332-20-3, 62301-32-0, 152758-95-7, 85404-19-9, 85404-20-2, 82005-06-9, 45410-39-7
MF C5 H5 N
CI COM, RPS
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CENB, CHEMCATS, CHEMINFORMEN, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFV, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, CHOOMPLITZ, ENCOMPPAT2, GMELIN*, HSDB*, 1FIDB, FIFDAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NAPFALERT, PIRA, PROMT, FS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL

(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
50776 REFERENCES IN FILE CA (1907 TO DATE)
6932 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
50844 REFERENCES IN FILE CAPLUS (1907 TO DATE)
8 REFERENCES IN FILE CACLD (PRIOR TO 1967)
```

```
L3 ANSWER 55 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN RN 109-99-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN Furan, tetrahydro- (CA INDEX NAME)
OTHER NAMES:
CN Butane α,6-oxide
N Butane, 1,4-epoxy-
CN Cyclotetramethylene oxide
Furanidine
CN NSC 57858
NO Cxcyclopentane
CN Oxolane
CN Tetrahydrofuran
CN Tetrahydrofuran
CN Tetrahydrofuran
CN Tetrahydrofuran
CN THE Andrew CA HOLD COMMENT COMMEN
                                                                                                  COM
STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
BIOTECHNO, CA, CACLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX,
CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGG, EMBASE,
ENCOMPLIT, ENCOMPLIT2, ENCOMPLIT2, ENCOMPLIT, SHOEM, FIFLDB,
IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, PIRA, PROMIT,
RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2,
USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
29451 REFERENCES IN FILE CA (1907 TO DATE)
914 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
29519 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
```

```
L3 ANSWER 56 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN RN 108-24-7 REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetic acid, 1,1'-anhydride (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetic acid, anhydride (9CI)
CN Acetic acid, anhydride (8CI)
OTHER NAMES:
CN Acetic oxide
CN Acetic oxide
CN Acetyl acetate
CN Acetyl achtaride
CN Acetyl anhydride
CN Acetyl anhydride
CN Acetyl achtaride
CN Acetyl oxide
CN Acetyl oxide
CN Ethanoic anhydride
CN Ethanoic anhydride
MF C4 H6 O3
CT CCM
                          COM
STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO,
                       CAOLD, CAPLUS, CASREACT, CENB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERN*, ZMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, PTRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL (*File contains numerically searchable property data)

Other Source: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
 Ac-O-Ac
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
20669 REFERENCES IN FILE CA (1907 TO DATE)
513 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
20724 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
```

```
ANSWER 57 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN RN 104-15-4 REGISTRY
ED Entered STN: 16 Nov 1984
EN Benzenesulfonic acid, 4-methyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
ON p-Toluenesulfonic acid (7CI, 8CI)
OTHER NAMES:
OTHER NAMES:
OTHER NAMES:
OTHER NAMES:
ON 4-Methylbenzenesulfonic acid
OTHER NAMES:
ON 4-Toluenesulfonic acid
ON 4-Toluenesulfonic acid
ON 4-Toluenesulfonic acid
ON Cat 51-53
ON Cyzac 4040
ON CAT 51-53
ON CYZAC 4040
ON DZYGR 900
ON K-Cure 1040
ON NSC 167068
ON NSC 167068
ON NSC 2167
ON P-Methylbenzenesulfonic acid
ON p-Methylphenylsulfonic acid
p-Methylphenylsulfonic acid
p-Toluenesulphonic acid
p-Tolylsulfonic acid
PTS 100
                 Taycatox 300
Toluenesulfonic acid
Tosic acid
TSA 95
 CN
 CN
CN
                 TBA 95
25231-46-3, 633305-48-3
402-47-1, 128739-80-0, 126033-27-0, 114213-96-6, 51506-29-7, 156627-46-2, 144647-92-7, 100901-72-2, 185568-48-3, 210357-81-6, 227313-49-7, 369371-25-5, 613262-31-0
                 C7 H8 O3 S
MF
 CI
LC
                 STN Files: AGRICOLA, ANABSTR, AOUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO,
CA.
                       CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,
                       MSDS-OHS, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, USPATOLD

(*File contains numerically searchable property data)
ther Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
                 Other
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
13015 REFERENCES IN FILE CA (1907 TO DATE)
531 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13058 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO 1967)
```

L3 ANSWER 57 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

```
L3 ANSWER 58 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN
RN 76-05-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetic acid, 2,2,2-trifluoro- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetic acid, trifluoro- (8CI, 9CI)
OTHER NAMES:
CN 2,2,2-Trifluoroacetic acid
CN NSC 77366
CN Perfluoroacetic acid
CN TFA
CN Trifluoroacetic acid
                                                                                                                                                   Trifluoroacetic acid
Trifluoroacetic acid
C2 H F3 02
COM
STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMEX,
CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT,
ENCOMPLIT2, ENCOMPFAT, ENCOMPFAT2, GMELIN*, HSDB*, IFICDB, IFIFAT7,
IFIUDB, IPA, MBDLINE, MRCK*, MSDS-OHS, PIRA, PRCMT, RTECS*, SPECINFO,
SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL
(**file contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
```

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

10160 REFERENCES IN FILE CA (1907 TO DATE)
400 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
10195 REFERENCES IN FILE CAPLUS (1907 TO DATE)
7 REFERENCES IN FILE CACLD (PRIOR TO 1967)

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INE,

MSDS-OHS, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER,
USPAT2, USPATFULL, USPATOLD

(*File contains numerically searchable property data)

Other Sources: DSI**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

12148 REFERENCES IN FILE CA (1907 TO DATE)
758 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
12162 REFERENCES IN FILE CAPLUS (1907 TO DATE)
366 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
L3 ANSWER 60 OF 64 REGISTRY COPYRIGHT 2008 ACS ON STN RN 75-09-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Methane, dichloro- (CA INDEX NAME)
CTHER NAMES:
CN Aerothene MM
Dichloromethane
CN F 30
Chlorocarbon)
CN F 60 (chlorocarbon)
CN F 70 (chlorocarbon)
CN F 70 (chlorocarbon)
CN HC 30
CN Methadon 30
CN Methadon 30
CN Methade dichloride
CN Methylene dichloride
CN Methylene dichloride
CN Methylene dichloride
CN Narkotil
CN Narkotil
CN Narkotil
CN Solaesthin
CN SOLAESTA CASEACT, CNBS, CREMINSORNE, CHBMISTI, CHBMSAFE, CIN CASEACT, CNBS, CREMINDSORNE, CHBMISTI, CHBMSAFE, CIN CASEACT, CNBS, CREMINDSORNE, CHBMISTI, CHBMSAFE, CIN CASEACT, CRBS, CREMINDSORNE, CRBCERME, CSNB
                                                               CM
TIN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
CHEMINFORNEX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
DRUGU, EMBASE, ENCOMPLIT, ENCOMPPAT, ENCOMPPAT, CHOCOMPAT, BOROMPAT,
HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS,
      NAPRALERT,
PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2,
                                                USPATFUL:

(*file contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
      C1-CH2-C1
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
32738 REFERENCES IN FILE CA (1907 TO DATE)
121 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
32832 REFERENCES IN FILE CAPLUS (1907 TO DATE)
7 REFERENCES IN FILE CACLD (PRIOR TO 1967)
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L3 ANSWER EL OF 6 REGISTRY COPYRIGHT 2008 ACS ON STN

3D FARCAGE MR. 100 1984

CA Acctonitiale (CA INDEX NAME)

CHER NAMES:

CH Acctonitiale cluster

CH Capanomethans

CH Cap
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3 ANSWER 63 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN N 64-19-7 REGISTRY D Entered STN: 16 Nov 1984 N Acetic acid (CA INDEX NAME)
THER NAMES:
N 61-0-1
N 52 10-1
N 64-19-1
N 74-19-1
N 74-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vinegar acid
77671-22-8
C2 H4 O2
                                          Supplier: ALDRICH Chemical Company, Inc.

Supplier: ALDRICH Chemical Company, Inc.

STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASRACT, CRNB, CHEMCATS, CHEMINFORNEX, CHEMIST, CHEMSAFE, CIN, CSCHEM, CSNS, DDFU, DETHERM*, DRUGU, ENBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GNELIN*, HSDB*, FIFLOB, IFIPAT, FIFUDB, IMSPROUDT, IMSRESBEARCH, IPA, MEDLIN*, MRCK*, MSDS-OHS, NAPRALERT, PIRA, PROMT, PS, RIECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPATFUL, VETU (*File contains numerically searchable property data)

Other Sources: DSI**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ethicap
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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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CN
DR
MF
CI
LC
                                                                                           114294 REFERENCES IN FILE CA (1907 TO DATE)
5758 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
114560 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
```

```
RN 64-17-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Ethanol (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ethyl alcohol (6CI, 7CI, 8CI)
OTHER NAMES:
N 100C.NPA
AND 2000
Alcare Hand Degermer
Alcohol
Alcohol Ahlydrol
Algrain
Anhydrol
CN Alyrical
CN Desinfektol EL
CN Deplicating Fluid 100C.NPA
CN Ethicap
CN Ethyl hydrate
CN Ethyl hydroxide
CN Germ-X
CN Hinetoless
CN IMS 99
Infinity Pure
CN Jayrol
N Jayrol
N Jayrol
N Methylcarbinol
CN Molasses alcohol
CN NSC 85228
CN Fotato alcohol
CN SD 3A
CN SSD 3A
CN Sekundasprit
CN Sterillium Rub
CN Synasol
CN Tecsol
CN CM
CN CN CM
CN C
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12/07/2008

10-535,630.trn

L3 ANSWER 64 OF 64 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

Н3С-СН2-ОН

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

233214 REFERENCES IN FILE CA (1907 TO DATE)
1781 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
234001 REFERENCES IN FILE CAPULOS (1907 TO DATE)
11 REFERENCES IN FILE CACUD (PRIOR TO 1967)

=>

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Welcome to STN International! Enter x:x

Thank you for accessing STN

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US Eastern time: Sunday from 01:00 (1:00 AM) until Saturday at 22:00 (10:00 PM)

On the first Saturday of each month, STN is available only until $17:00 \ (5:00 \ PM)$.

Tokyo time: Sunday from 14:00 (2:00 PM) until Sunday at 11:00 (11:00 AM)

On the Sunday of the first weekend of each month, STN is available only until $06:00\ (6:00\ AM)$.

Additionally, representatives from the Help Desk and Customer Service may be reached from 08:00 (8:00 AM) to 20:00 (8:00 PM) US Eastern time, Monday through Friday, at the following telephone numbers:

Help Desk - (800) 848-6533 North America - (614) 447-3698 Elsewhere

Customer Service - (800) 753-4227 North America - (614) 447-3731 Elsewhere

We can also be contacted via email at HELP@CAS.ORG.

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Our services are currently unavailable. The regularly scheduled hours of operations are:

US Eastern time: Sunday from 01:00 (1:00 AM) until

Saturday at 22:00 (10:00 PM)

On the first Saturday of each month, STN is available only until $17:00 \ (5:00 \ PM)$.

Tokyo time: Sunday from 14:00 (2:00 PM) until

Sunday at 11:00 (11:00 AM)

On the Sunday of the first weekend of each month, STN is available only until $06:00\ (6:00\ AM)$.

Additionally, representatives from the Help Desk and Customer Service may be reached from 08:00 (8:00 AM) to 20:00 (8:00 PM) US Eastern time, Monday through Friday, at the following telephone numbers:

Help Desk - (800) 848-6533 North America

- (614) 447-3698 Elsewhere

Customer Service - (800) 753-4227 North America

- (614) 447-3731 Elsewhere

We can also be contacted via email at HELP@CAS.ORG.

Connection closed by remote host

Connecting via Winsock to STN

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LOGINID:ssptajem1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

NEWS 1 Web Page for STN Seminar Schedule - N. America NEWS 2 AUG 15 CAOLD to be discontinued on December 31, 2008

NEWS	3	OCT	07	EPFULL enhanced with full implementation of EPC2000
NEWS	4	OCT		Multiple databases enhanced for more flexible patent
				number searching
NEWS	5	OCT	22	
				enhanced
NEWS	6	OCT	22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT
				Applications
NEWS	7	OCT	24	CHEMLIST enhanced with intermediate list of
				pre-registered REACH substances
NEWS	8	NOV	21	CAS patent coverage to include exemplified prophetic
				substances identified in English-, French-, German-,
				and Japanese-language basic patents from 2004-present
NEWS	9	NOV	26	MARPAT enhanced with FSORT command
NEWS	10	NOV	26	MEDLINE year-end processing temporarily halts
				availability of new fully-indexed citations
NEWS	11	NOV	26	CHEMSAFE now available on STN Easy
NEWS	12	NOV	26	Two new SET commands increase convenience of STN
				searching
NEWS	13	DEC	01	ChemPort single article sales feature unavailable
		~ ~		_ 05 00 000

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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Enter NEWS followed by the item number or name to see news on that specific topic.

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=> file req COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.21 0.21

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STRUCTURE FILE UPDATES: 5 DEC 2008 HIGHEST RN 1080697-25-1

DICTIONARY FILE UPDATES: 5 DEC 2008 HIGHEST RN 1080697-25-1

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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=>

Uploading C:\Program Files\Stnexp\Queries\10-535,630.str

```
chain nodes :
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 27 28 29 30 31 32 39
    40 41 42 43 44
ring nodes :
1 2 3 4 5 6 22 23 24 25 26 33 34 35 36 37 38
chain bonds :
6-7 \quad 7-8 \quad 7-27 \quad 8-9 \quad 9-10 \quad 9-14 \quad 10-11 \quad 10-12 \quad 12-13 \quad 14-15 \quad 14-44 \quad 15-16 \quad 16-17
16-20 \quad 17-18 \quad 17-19 \quad 20-21 \quad 21-22 \quad 24-28 \quad 28-29 \quad 28-30 \quad 30-31 \quad 31-32 \quad 31-39 \quad 32-33 \quad 32-3
39-40 40-41 40-42 42-43
ring bonds :
1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 22-23 \quad 22-26 \quad 23-24 \quad 24-25 \quad 25-26 \quad 33-34 \quad 33-38
34-35 35-36 36-37 37-38
exact/norm bonds :
1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 7-8 \quad 7-27 \quad 8-9 \quad 14-15 \quad 14-44 \quad 15-16 \quad 22-23 \quad 22-26
23-24 24-25 25-26 28-29 28-30 30-31 42-43
exact bonds :
6-7 \quad 9-10 \quad 9-14 \quad 10-11 \quad 10-12 \quad 12-13 \quad 16-17 \quad 16-20 \quad 17-18 \quad 17-19 \quad 20-21 \quad 21-22
24-28 31-32 31-39 32-33 39-40 40-41 40-42
```

normalized bonds :

33-34 33-38 34-35 35-36 36-37 37-38

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS

L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 14:53:12 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS 4 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE** BATCH **COMPLETE**

PROJECTED ITERATIONS: 360 TO 1080

PROJECTED ANSWERS: 4 TO 200

4 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 14:53:21 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 753 TO ITERATE

100.0% PROCESSED 753 ITERATIONS 81 ANSWERS

SEARCH TIME: 00.00.01

L3 81 SEA SSS FUL L1

=> s 13

SAMPLE SEARCH INITIATED 14:53:29 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS 4 ANSWERS SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 360 TO 1080

PROJECTED ANSWERS: 4 TO 200

L4 4 SEA SSS SAM L1

=> file caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 178.82 179.03

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FILE COVERS 1907 - 7 Dec 2008 VOL 149 ISS 24 FILE LAST UPDATED: 5 Dec 2008 (20081205/ED)

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=> s 13

L5 35 L3

=> d ibib abs hitstr 1-YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

DOCUI TITL INVE PATE SOUR	SSIC MENT E: NTOI NT /	ON NU F NUM R(S): ASSIG	MBER: BER: NEE(:		2004:10060832 CAPLUS 142:43740 Aptamer-toxin molecules and methods for using same Stanton, Martin; Kurz, Markus; Wilson, Charles USA U.S. Pat. Appl. Publ., 41 pp., Contin-part of U.S. Ser. No. 600,007. CODEN: USXXCO Patent														
LANG FAMI	UAGI LY A	E: ACC. INFOR	NUM. MATI	ON:		Eng 11														
		TENT				KIN		DATE				LICAT					ATE			
<	US	2004	0249	130		A1		2004	1209		US	2004-		21	0040	415				
<	US 20040022727							2004	0205		US	2003-	6000	07		21	0030	618		
		2004 2004			A2 A1		2004 2004			AU	2004-		21	0040	421					
		2523				A1		2004			CA	2004- 2004-	2523	260			0040			
		2004				A2 A3		2004			WO	2004-	US12	670		21	0040	421		
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HR			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	HU,	PL,	SK,		
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<	US	2005	0159	351		A1		2005	0721		US	2004-	9802	11		21	0041	102		
<		2005				A2					WO	2005-	US12	797		21	0050	415		
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L6	EE, ES, RO, SE,	CAPLUS CO KG, KZ, I FI, FR, O SI, SK, S	MD, RU, GB, GR, IR, BF,	TJ, TM, HU, IE,	AT, BE, IS, IT,	BG, CH, LT, LU,	CY, CZ, MC, NL,	DE, DK, PL, PT,
	EP 1756318 R: AT, BE,	BG, CH, C	20070 CY, CZ,	NL, PL,	EE, ES, PT, RO,	FI, FR,	GB, GR, SK, TR	
<	RITY APPLN. INFO).:		U	S 2002-	390042P	P :	20020618
<				U	S 2003-	600007	A2 1	20030618
				U	S 2002-	428102P	P	20021121
<				υ	s 2003-	441357P	P	20030121
				U	s 2003-	463095P	P	20030415
				U	s 2003-	464179P	P :	20030421
						464239P		20030421
				υ	s 2003-	465053P	P	20030423
						465055P		20030423
				υ	s 2003-	469628P	P	20030508
				U	S 2003-	474133P	P	20030529
				υ	S 2003-	474680P	P	20030529
				U	S 2003-	486580P	P	20030711
				U	S 2003-	489810P	P	20030723
				U	S 2003-	491019P	P	20030729
				U	S 2003-	503596P	P	20030916
				U	S 2003-	512071P	P	20031017
				U	S 2003-	523935P	P	20031121
				U	S 2003-	718833	A i	20031121
				U	S 2004-	537045P	P	20040116
				U	S 2004-	537201P	P	20040116
				U	S 2004-	762915	A i	20040121
				U	S 2004-	826077	A :	20040415

L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
US 2004-829504 A2 20040421 WO 2004-US12670 W 20040421 US 2004-873853 A2 20040621 P 20050307 US 2005-660514P US 2005-670518P P 20050411

Materials and methods are provided to prepare therapeutic conjugates for

treatment of proliferative diseases. The therapeutic conjugates of the invention comprise a targeting moiety conjugated to a therapeutic moiety. The thetapeutic moiety of the conjugates of the present invention have a cytotoxic effect and are useful in the treatment of proliferative diseases.

309935-58-8D, Tubulysine, derivs., aptamer conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aptamer-toxin conjugates for targeted treatment of proliferative diseases)

(aptamer-toxin conjugates for targeted treatment of proliferative diseases) 309935-58-8 CAPLUS Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(1-oxoboutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]- α -methyl-, $(\alpha S, \gamma R)$ - (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSMER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
DOCUMENT NUMBER:
111123346
Annual Answer Companies
Annual Annual Answer Companies
Annual Annu

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

046170 046170 AE, AG, A CC, CR, C GM, HR, H LS, LT, L FL, FT, L UA, UG, U GH, GM, K KG, KZ, M FI, FR, G BF, BJ, C 283282	A1 A2 A3, LL, AM, LU, CZ, LU, LV, KO, RU, KO, RU, KE, LS, MD, RU, KE, CF, CG,	AT, DE, IL, MA, SC, VC, MW, TJ, HU, CI,	20040 AU, DK, IN, MD, SD, VN, MZ, TM, IE, CM,	0603 0701 AZ, DM, IS, MG, SE, YU, SD, AT, IT, GA,	BA, DZ, JP, MK, SG, ZA, SL, BE, LU,	BB, EC, KE, MN, SK, ZM, SZ, BG, MC,	BG, EE, KG, MW, SL, ZW TZ, CH,	BR, ES, KP, MX, TJ,	84439 803 BY, FI, KR, MZ, TM,	BZ, GB, KZ, NO, TN,	CA, GD, LC, NZ, TR,	CH, GE, LK, OM, TT,	CN GH LR PH TZ
046170 AE, AG, A CO, CR, C GM, HR, H LS, LT, L PL, PT, R UA, UG, U GH, GM, K KG, KZ, M FI, FR, G BF, BJ, C	A3 L, AM, CU, CZ, HU, ID, LU, LV, RO, RU, JS, UZ, GE, LS, HD, RU, GB, GR, CF, CG,	AT, DE, IL, MA, SC, VC, MW, TJ, HU, CI,	20040 AU, DK, IN, MD, SD, VN, MZ, TM, IE, CM,	J701 AZ, DM, IS, MG, SE, YU, SD, AT, IT, GA,	BA, DZ, JP, MK, SG, ZA, SL, BE, LU,	BB, EC, KE, MN, SK, ZM, SZ, BG, MC,	BG, EE, KG, MW, SL, ZW TZ, CH,	BR, ES, KP, MX, TJ,	BY, FI, KR, MZ, TM,	BZ, GB, KZ, NO, TN,	CA, GD, LC, NZ, TR,	CH, GE, LK, OM, TT,	CN GH LR PH TZ
AE, AG, A CO, CR, C GM, HR, H LS, LT, L PL, PT, R UA, UG, U GH, GM, K KG, KZ, M FI, FR, G BF, BJ, C	L, AM, CU, CZ, HU, ID, LU, LV, RO, RU, IS, UZ, CE, LS, HD, RU, FB, GR, CF, CG,	AT, DE, IL, MA, SC, VC, MW, TJ, HU, CI,	AU, DK, IN, MD, SD, VN, MZ, TM, IE, CM,	AZ, DM, IS, MG, SE, YU, SD, AT, IT, GA,	DZ, JP, MK, SG, ZA, SL, BE, LU,	EC, KE, MN, SK, ZM, SZ, BG, MC,	EE, KG, MW, SL, ZW TZ, CH,	ES, KP, MX, TJ, UG, CY,	FI, KR, MZ, TM, ZM, CZ,	GB, KZ, NO, TN, ZW, DE,	GD, LC, NZ, TR, AM, DK,	GE, LK, OM, TT, AZ, EE,	GH LR PH TZ
CO, CR, C GM, HR, H LS, LT, L PL, PT, R UA, UG, U GH, GM, K KG, KZ, M FI, FR, G BF, BJ, C	CU, CZ, HU, ID, LV, LV, RO, RU, JS, UZ, KE, LS, HD, RU, KEB, GR, CF, CG,	DE, IL, MA, SC, VC, MW, TJ, HU, CI,	DK, IN, MD, SD, VN, MZ, TM, IE, CM,	DM, IS, MG, SE, YU, SD, AT, IT, GA,	DZ, JP, MK, SG, ZA, SL, BE, LU,	EC, KE, MN, SK, ZM, SZ, BG, MC,	EE, KG, MW, SL, ZW TZ, CH,	ES, KP, MX, TJ, UG, CY,	FI, KR, MZ, TM, ZM, CZ,	GB, KZ, NO, TN, ZW, DE,	GD, LC, NZ, TR, AM, DK,	GE, LK, OM, TT, AZ, EE,	GH LR PH TZ
FI, FR, G BF, BJ, C	B, GR, F, CG,	HU,	IE, CM,	IT, GA,	LU,	MC,							
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5	9 128754 .N. INFO.:	9 T 0128754 A1 .N. INFO.:	9 T 128754 Al	9 T 20081 1128754 A1 20060 .N. INFO.:	9 T 20081115 9128754 A1 20060615 N. INFO.:	9 T 20081115 . 0128754 A1 20060615 . N. INFO.:	39 T 20081115 AT 2 3128754 A1 20060615 US 2 3N. INFO.: DE 2	9 T 20081115 AT 2003- 1128754 A1 20060615 US 2005- .N. INFO.: DE 2002- WO 2003-	T 20081115 AT 2003-7752 1128754 A1 20060615 US 2005-5356 N. INFO.: DE 2002-1025- WO 2003-EP11	9 T 20081115 AT 2003-775204 2128754 A1 20060615 US 2005-535630 NN. INFO.: DE 2002-10254439 WO 2003-EP11603	T 20081115 AT 2003-775204 1128754 A1 20060615 US 2005-535630 NN. INFO:: DE 2002-10254439	9 T 20081115 AT 2003-775204 20128754 A1 20060615 US 2005-535630 20128754 AD 2002-10254439 A 2012-10254439 A 2012-102544439 A 2012-1025444444444444444444444444444444444444	WO 2003-EP11603 W 200310

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention concerns a compound of the subsequent tubulysin general formula I [R = H, C1-4-alkyl, aryl, OR1 NR1R2,NH-(CH2)2-4; R1 = H,

L6

halo, NO2, NHR3; R3 = H, HCO, C1-4-alkyl-CO; T = H, OR4; R4 = H, C1-4-alkyl, aryl, COR5, P(O)(OR6)2, SO3R6; R5 = C1-6-alkyl, alkenyl,

heteroaryl; R6 = H, C1-4-alkyl, metal ion; V = H, R7, or (for W = O) \odot ;

= H, C1-4-alkyl, COR8; R8 = C1-4-alkyl, alkenyl, aryl; W = H,

= H, C1-4-alkyl, COR8; R8 = C1-4-alkyl, alkenyl, aryl; w = H, C1-4-alkyl,
(for V = O) O; X = H, C 1-4 alkyl, alkenyl, CH2OR9; R9 = H, C 1-4 alkyl,
alkenyl, aryl, COR10; R10 = C1-6-alkyl, alkenyl, aryl, heteroaryl; Y =
(for Z = CH3 or COR11) free electron pair or (for Z = CH3) O; R11 =
C1-4-alkyl, CF3, aryl and/or Z = (for Y = O or free electron pair) CH3 or
(for Y = free electron pair) COR11]. A process for the prepn. of I is
characterized by the acid-catalyzed splitting of the ester II [R10 =
C1-6-alkyl; T = H, OH] (preferably HCl in dioxane) or by a hard base

NH3) in alc. (esp. MeOH), acylation, redn., oxidn., alkylation, halogenation, esterification, etherification or reaction with Grignard or alkyllithium reagents. Thus, Tubulysin A benzylamide (III) was prepd. from Tubulysin A via amidation of the isobutyryl mixed anhydride with PhCH2NH2 in THF contg. Eth(CHMe2)2.

(897762-87-1P
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PEEP (Preparation); USES (Uses) (manufacture of tubulysin derivs. via acid or base cleavage of the

ester

side chain)
697762-87-1 CAPLUS
Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(28,38)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-4-methoxy- α -methyl-, (α S, γ R)(CA INDEX NAME)

Absolute stereochemistry.

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

697236-78-5 CAPLUS 69/236-78-3 CAPLOS
Benzenepentanoic acid, 4-hydroxy-y-[[[2-[(1R,3R)-1-hydroxy-4-methyl-3-[((2R,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]4thiazolyl]carbonyl]amino]-a-methyl-, (aS,yR)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A Η. Me

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

697236-76-3P 697236-78-5P IT 69/35-76-79 69/256-78-59 RCT (Reactant); SPN (Synthetic preparation); TBU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RBCT (Reactant or reagent); USES (Uses) (manufacture of tubulysin derivs. via acid or base cleavage of the

ester

side chain)
697236-76-3 CAPLUS
Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-3-[(hydroxymethyl)((2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-oxopentyl]amino]-4-methylpentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy- α -methyl-, (α S, γ R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

ester

697236-77-4P 697236-82-1P 697236-83-2P 697236-84-3P 697236-84-3P 697236-88-4P 697236-86-5P 697236-87-6P 697751-29-4P, Tubulysin A benzylamide 697751-30-7P, Tubulysin A propyl ester 697762-77-9P 697762-78-0P 697762-79-1P 697762-88-2P 697762-2P-3P 698791-6-6P, Tubulysin A methyl ester 698391-62-7P, Tubulysin A propylamide RI: IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (Uses) (manufacture of tubulysin derivs. via acid or base cleavage of the

side chain)
697236-77-4 CAPLUS
Benzenepentancic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R,3R)-3-methyl-2-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy- α -methyl-, (α S, γ R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

(Continued)

PAGE 1-B



RN 697236-82-1 CAPLUS
CN Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-3-[(ethoxymethyl)(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl](arbonyl]amino]-1-oxopentyl]amino]-4-methylpentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (αS,γR)-(CA INDEX NAME)

Absolute stereochemistry.

HO PAGE 1-A

Me
AcO i-Pr
H
S
FFO Me
FF

PAGE 1-B



RN 697236-83-2 CAPLUS
CN Benzenepentanoic acid, Y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((2R,38)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][((3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

HO I -Pr Me Me Me S Et

PAGE 1-B

R

RN 697236-85-4 CAPLUS
CN Benzenepentanoic acid, y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3R)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiacolyl]carbonyl]amino]-4-hydroxy-α-methyl-3-nitro-,
(αS,γR)- (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued) thiazolyl]carbonyl]amino]-4-hydroxy-3-iodo-α-methyl-, (αS, γR)- (CA INDEX NAME)

Absolute stereochemistry.

HO PAGE 1-A

Me
AcO i-Pr
Me
Me
Me

I-Bu
O

PAGE 1-B

R

RN 697236-84-3 CAPLUS
CN Benzenepentanoic acid, γ-[[[2-[(1R, 3R)-1-(acetyloxy)-4-methyl-3-[[(2R), 33)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-3,5-diiodo-α-methyl-, (αS, γR)- (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

N R

RN 697236-86-5 CAPLUS
CN Benzenepentanoic acid, y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R)-1-methyl-1-oxido-2-piperidinyl]carbonyl]amino]-1-oxopentyl]((3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (αS, γR)- (CA INDEX NAME)

Absolute stereochemistry.

(Continued)

PAGE 1-A

PAGE 1-B

697236-87-6 CAPLUS

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Absolute stereochemistry.

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

697751-30-7 CAPLUS Benzenepentanoic acid, $\gamma = [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((28,3-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutcxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-<math>\alpha$ -methyl-, propyl ester, $(\alpha S, \gamma R)$ - (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B



697751-29-4 CAPLUS
Butanoic acid, 3-methyl-, [[(1R,3R)-3-(acetyloxy)-3-[4-[[(1R,3S)-1-[(4-hydroxyphenyl)methyl]-3-methyl-4-oxo-4[(phenylmethyl)amino]outyl]amino]carbonyl]-2-thiazolyl]-1-(1-methylethyl)propyl][(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]methyl ester (CA INDEX NAME) RN CN

Absolute stereochemistry. Rotation (+).

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

697762-77-9 CAPLUS

697762-77-9 CAPLUS Benzenepentanoic acid, $\gamma = [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-\alpha-methyl-4-(2-methyl-1-oxopropoxy)-, (<math>\alpha S, \gamma R$)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

(Continued)

PAGE 1-A

PAGE 1-B

697762-78-0 CAPLUS Butanoic acid, 3-methyl-, [[(1R,3R)-3-(acetyloxy)-3-[4-[[[(1R,3S)-4-(hexylamino)-1-[(4-hydroxyphenyl)methyl]-3-methyl-4-oxobutyl]amino]carbonyl]-2-thiazolyl]-1-(1-methyl-ethyl)propyl][(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]methyl ester (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

697762-88-2 CAPLUS Benzenepentanoic acid, $\gamma - \{ [2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((2R),38)-3-methyl-2-][((2R)-1-methyl-2-piperiddinyl]carbonyl]amino]-1-copentyl] [(3-methyl-1-copointoxy) methyl]amino]entyl]-4-thiazolyl]carbonyl]amino]-<math>\alpha$ -methyl-4-(2-propen-1-yloxy)-, 2-propen-1-yl ester, $(\alpha S, \gamma R)$ - (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

697762-79-1 CAPLUS Benzenepentanolc acid, $\gamma = [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[(2R,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]earbonyl]amino]-4-hydroxy-<math>\alpha$ -methyl-, ethyl ester, $(\alpha S, \gamma R)$ (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A CH2

PAGE 1-B

697762-92-8 CAPLUS Benzenepentanoic acid, 4-(acetyloxy)- γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[([2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]- α -methyl-, (α S, γ R)- (CA INDEX NAME)

Absolute stereochemistry.

(Continued)

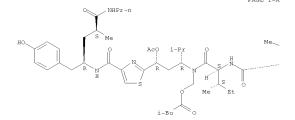
PAGE 1-A

PAGE 1-B

698391-61-6 CAPLUS $\label{eq:controlled} \begin{array}{lll} \texttt{cyr3y1-61-6} & \texttt{CAPLUS} \\ \texttt{Benzenepentanoic} & \texttt{caid}, & \texttt{\gamma-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-coxpentyl][(3-methyl-1-coxbutcxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-\alpha-methyl-, methyl ester, \\ & (\textbf{α}, \textbf{γR})- & (\texttt{CA} & \texttt{INDEX} & \texttt{NAME}) \\ \end{array}$

Absolute stereochemistry.

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



PAGE 1-B

$$\mathbb{I}_{\mathbb{R}}$$

205304-86-5, Tubulysin A 205304-87-6, Tubulysin B 205304-88-7, Tubulysin C 309935-57-7, Tubulysin D 309935-58-8, Tubulysin E 368870-67-1, Tubulysin F RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (manufacture of tubulysin derivs. via acid or base cleavage of the

side chain)
205304-86-5 CAPLUS
Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino[pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (αS,γR)-(CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A Me_

PAGE 1-B

hydroxyphenyl)methyl]-3-methyl-4-oxo-4-(propylamino)butyl]amino]carbonyl]-

2-thiazolyl]-1-(1-methylethyl)propyl][(2S, 3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl]amino]methyl ester (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Ме

DAGE 1_B

205304-87-6 CAPLUS Benzenepentanoic acid, $\gamma - [[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino[[(2R)-1-methyl-2-methyl-2-piperidinyl]carbonyl]amino[[(2R)-1-methyl-2-methyl$

Absolute stereochemistry.

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

(Continued)

PAGE 1-A

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

PAGE 1-B

205304-88-7 CAPLUS

2U33U4-36-/ CAPLUS
Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

oxopentyl][(1-oxopropoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy- α -methyl-, (α S, γ R)- (CA INDEX NAME)

Absolute stereochemistry.

309935-57-7 CAPLUS

309935-57-7 CAPLUS
Benzenepentanoic acid, Y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-d-methyl-, (dS,YR)- (CA INDEX

Absolute stereochemistry. Rotation (+).

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

309935-58-8 CAPLUS Benzenepentanoic acid, $\gamma - [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-coxpentyl][(1-coxbutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-\alpha-methyl-, (<math>\alpha S, \gamma R$)- (CA INDEX NAME)

Absolute stereochemistry.

 $\label{eq:continuous} \begin{array}{lll} 368870-67-1 & \text{CAPLUS} \\ \text{Benzenepentanoic acid, } \gamma-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-[[(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl]-1-[[(2R)-1-methyl-2-piperidinyl]carbonyl-1-[(2R)-1-methyl-2-piperidinyl]carbonyl-1-[(2R)-1-methyl-2-piperidinyl]carbonyl-1-[$

Absolute stereochemistry.

IT 697236-88-7P, Tubulysin A methyl ether methyl ester

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. and enzymic hydrolysis of; manuf. of tubulysin derivs. via

d
or base cleavage of the ester side chain)
697236-88-7 CAPLUS
Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-4-methoxy-α-methyl-, methyl ester,
(αS,γR)- (CA INDEX NAME)

Absolute stereochemistry.

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TT 697236-80-9P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and esterification of, with diazomethane; manufacture of tubulysin derivs. via acid or base cleavage of the ester side chain)
RN 697236-80-9 CAPLUS

ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued) Benzenepentanoic acid, 4-hydroxy- γ -[[[2-[(1R,3R)-1-hydroxy-4-methyl-3-[([2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-coxpentyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]- α -methyl-(α S, γ R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-B

PAGE 1-A

ANSMER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued) (gene cluster for enzymes of tubulysin biosynthesis of Angiococcus disciformis and its use in manuf. of tubulysins for therapeutic use) 205304-86-5 CAPLUS Benzenepentanoic acid, γ-[[[2-(1R,3R)-1-(acetyloxy)-4-methyl]-3-([(2R,3R)-3-methyl]-2-[[((2R,3R)-1-methyl]-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (αS,γR)-(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

205304-87-6 CAPLUS

205304-07-0 CAPBOS Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

Absolute stereochemistry.

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:216844 CAPLUS

DOCUMENT NUMBER: 140:248261 TITLE: The gene cluster for enzymes of tubulysin biosynthesis

of Angiococcus disciformis and its use in the manufacture of tubulysins for therapeutic use Hoefle, Gerhard; Mueller, Rolf; Sasse, Florenz; Sandmann, Axel; Bloecker, Helmut Gesellschaft fuer Biotechnologische Forschung m.b.H. (GBF), Germany Ger. Offen., 56 pp. CODEN: GWXXEX Patent INVENTOR(S):

PATENT ASSIGNEE(S) .

SOURCE

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE DE 10241152 A1 20040318 DE 2002-10241152 20020905 WO 2004022586 20040318 WO 2003-EP9780 20030903 A2

2004022586 A3 20041111
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, FR, HU, ID, IL, IN, IS, JP, FE, FG, FP, FR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MS, MK, MN, MM, MX, MZ, NO, NZ, CM, PH, PL, FT, FO, BU, SC, SD, SE, SG, SK, SL, TJ, TM, TT, TT, TT, UA, UG, US, UZ, VC, VN, VU, ZA, ZM, ZM
RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, SS, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, FT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CT, CM, GA, GN, GQ, GM, ML, MR, NE, SN, TD, TG WO 2004022586 BF, B AU 2003267036 US 20060217360 20060928 A1 US 2005-526572 20051011

PRIORITY APPLN. INFO.: DE 2002-10241152 A 20020905

WO 2003-EP9780 W 20030903

The gene cluster of Angiococcus disciformis encoding the enzymes of tubulysin biosynthesis is cloned and characterized. The genes may be expressed in other hosts for the manufacture of tubulysins. The genes AB

identified by transposon mutagenesis.

205304-86-5DP, Tubulysin A, analogs, derivs. 205304-87-6DP,

Tubulysin B, analogs, derivs. 205304-88-7DP, Tubulysin C,
analogs, derivs. 309935-57-7DP, Tubulysin D, analogs, derivs.

309935-58-8DP, Tubulysin E, analogs, derivs. 368870-67-1DP,

Tubulysin F, analogs, derivs. 368870-67-1DP

(Biological study); PREP (Preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

DAGE 1_B

205304-88-7 CAPLUS

Benzenepentanoic acid, $\gamma = [[(2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-$

Absolute stereochemistry.

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

309935-57-7 CAPLUS 309935-57-7 CAPLUS
Benzenepentanoic acid, Y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-«-methyl-, («S,YR)- (CA INDEX

Absolute stereochemistry. Rotation (+).

ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

309935-58-8 CAPLUS Benzenepentanoic acid, $\gamma - [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R),3R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-\alpha-methyl-, (<math>\alpha S, \gamma R$)- (CA INDEX NAME)

368870-67-1 CAPLUS

Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

Absolute stereochemistry.

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:41504 CAPLUS
DOCUMENT NUMBER: 140:71012
TUDLY in Conjugates with polymers or biomolecules, and use for the treatment of cancer
Doemling, Alexander; Weber, Lutz
Appl., 21 pp.
COOMENT TYPE: COOMENT TYPE: Patent Appl., 21 pp.
COOMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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<	WO 2004005326																				
\	WO 2004005326			А3	A3 20040219																
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											WO 2	003-	EP74	15	1	w 2	0030	709			

OTHER SOURCE(S): MARPAT 140:71010

AB The invention discloses tubulysin conjugates (e.g. of tubulysin A) with polymer or biomols. (e.g. antibodies) and the use thereof in the treatment of cancers.

17 205304-86-5D, Tubulysin A, conjugates with polymers or biomols.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (USES) (tubulysin conjugates with polymers or biomols., and use for treatment of cancer)

RN 205304-86-5 CAPLUS

CN Benzenepentanoic acid, Y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-

ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued) [[(2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-coxopentyl]((3-methyl-1-coxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-α-methyl-, (αS,γR)-(CA, LNRY,NAME) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 1-A

ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued) 205304-86-5 cAPLUS Benzenepentanoic acid, $\gamma - [[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-<math>\alpha$ -methyl-, (α S, γ R)-(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

 $\label{eq:control_2} 205304-87-6 \quad \text{CAPLUS} \\ \text{Benzenepentanoic acid, } & \mathbf{y}-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-1-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[(2R,3R)-3-methyl-2-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2-methyl-2-piperidinyl)carbonyl]amino]-1-[((2R,3R)-3-methyl-2$

oxopenty1][(1-oxobutoxy)methyl]amino]penty1]-4-thiazoly1]carbony1]amino]-4-hydroxy-α-methyl-, (αS,γR)- (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:794958 CAPLUS

DOCUMENT NUMBER: 135:331296

Preparation of stereospecific synthetic tubulysins TITLE:

intermediates

intermediates
Hofle, Gerhard; Leibold, Thomas; Steinmetz, Heinrich
Gesellschaft Fur Biotechnologische Forschung Mbh
(Gbf), Germany
Ger. Offen., 22 pp.
CODEN: GWXXBX
Fatent INVENTOR(S): PATENT ASSIGNEE(S):

SOURCE

DOCUMENT TYPE:

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE DE 10008089 A1 20011031 DE 2000-10008089 20000222 PRIORITY APPLN. INFO.: 20000222

OTHER SOURCE(S): CASREACT 135:331296; MARPAT 135:331296

Methods for the stereospecific synthesis of tubulysins (I; R = CH2CH3, (CH2)2CH3, (H2CH(CH3)2; RI = H, OH) and their intermediates and stereoisomers were claimed (no data). The absolute stereochem. AB

stereoisomers were claimed (no data). The absolute stereochem. configuration
of tubulysins was determined Steps in the preparation included reductive amination
of (28)-2-piperidine carboxylic acid and ring-opening of Boc-N-3-methyl-5-benzylpyrrolidin-2-one, which was prepared from BOC-Phe-OR.
IT 205304-86-5, Tubulysin A 205304-87-6, Tubulysin B 205304-88-7, Tubulysin C 309935-57-7, Tubulysin D 309935-58-8, Tubulysin E 368870-67-1, Tubulysin F RE: NUU (Other use, unclassified); USES (Uses)
(preparation of stereospecific synthetic tubulysins and intermediates)

ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

DAGE 1_B

205304-88-7 CAPLUS

201304-06-7 CAPBOS Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

Absolute stereochemistry.

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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309935-57-7 CAPLUS 309935-57-7 CAPLUS
Benzenepentanoic acid, Y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3S)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl)carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-«-methyl-, («S,YR)- (CA INDEX

Absolute stereochemistry. Rotation (+).

(Continued) ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

309935-58-8 CAPLUS Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[((2R),3R)-3-methyl-2-[[((2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]- α -methyl-, (α S, γ R)- (CA INDEX NAME)

368870-67-1 CAPLUS

Benzenepentanoic acid, γ -[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-

oxopentyl][(1-oxopropoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]- α -methyl-, (α S, γ R)- (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 6 OF 7
ACCESSION NUMBER: 2000:702489 CAPLUS
DOCUMENT NUMBER: 134:15006
TITLE: 134:15006
TUDUlysins, new cytostatic peptides from myxobacteria acting on microtubuli. Production, isolation, physico-chemical and biological properties
AUTHOR(S): Sasse, Florenz; Steinmetz, Heinrich; Heil, Jurgen; Hofile, Gerhard; Reichenbach, Hans
CORPORATE SOURCE: GBF, Gesellschaft fur Biotechnologische Forschung mbB.

Abteilung Naturstoffbiologie, Braunschweig, D-38124,

PUBLISHER: DOCUMENT TYPE: LANGUAGE:

Abteilung Naturstoffbiologie, Braunschweig, D-38124,
Germany
CE: Journal of Antibiotics (2000), 53(9),
879-885

CODEN: JANTAJ; ISSN: 0021-8820

ISHER: Japan Antibiotics Research Association
Journal
UMGE: English
New cytostatic compds, tubulysins, were isolated from the culture broth
of strains of the myxobacteria Archangium gephyra and Angiococcus
disciformis. The compds. are peptides partly consisting of unusual amino
acids and are distantly related to the dolastatins. The tubulysins were
not active against bacteria and only little against fungi, but showed

high
cytostatic activity against mammalian cell lines with IC50 values in the
picomolar range. An incubation with 50 ng/mL tubulysin A led to a
complete disappearance of the microtubuli network of the cells within 24
h. The more active tubulysin D induced multipolar spindles; at 0.5 ng/mL
all mictotic cells showed more than four spindle poles.

IT 205304-86-5P, Tubulysin B 205304-87-6P, Tubulysin B
309935-57-7P, Tubulysin D 309935-58-8P, Tubulysin E
RL: BAC (Biological activity or effector, except adverse); BOC
(Biological

microtubuli)
205304-86-5 CAPLUS
Benzenepentanoic acid, $\gamma = [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[(2R,3R)-1-(acetyloxy)-4-methyl-3-[(2R,3R)-1-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-a-methyl-, (aS,YR)-(CA INDEX NAME)$

Absolute stereochemistry.

(Continued)

PAGE 1-A

PAGE 1-A

PAGE 1-B PAGE 1-B

205304-87-6 CAPLUS

 $\begin{array}{lll} & \text{CAPLOS} \\ & \text{Benzenepentanoic acid, } \gamma - [[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[((28,38)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-} \\ & \end{array}$

 $\begin{array}{l} \text{oxopentyl} \, [\, (1-\text{oxobutoxy}) \, \text{methyl} \,] \, \text{amino} \,] \, \text{pentyl} \,] \, -4-\text{thiazolyl} \,] \, \text{carbonyl} \,] \, \text{amino} \,] \, -4-\text{hydroxy} -\alpha-\text{methyl} \, - \, \, \\ \text{(α,γR)} \, - \, \, \, \, \, \text{(CA INDEX NAME)} \end{array}$

Absolute stereochemistry.

309935-57-7 CAPLUS 309935-57-7 CAPLUS
Benzenepentanoic acid, Y-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4thiazolyl]carbonyl]amino]-d-methyl-, (dS,YR)- (CA INDEX

Absolute stereochemistry. Rotation (+).

ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

309935-58-8 CAPLUS Benzenepentanoic acid, $\gamma - [[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-coxpentyl][(1-coxbutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-\alpha-methyl-, (<math>\alpha S, \gamma R$)- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR

FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1998:208578 CAPLUS DOCUMENT NUMBER: 128:256473 CRIGINAL REFERENCE NO.: 128:50787a,50790a US COPYRIGHT 2008 ACS on STN
1998:208578 CAPLUS
128:256473
128:550787a,50790a
Antimycotic and cytostatic compounds manufacture with
Archangium
Reichenbach, Hans; Hoefle, Gerhard; Sasse, Florenz;
Steinmetz, Heinrich
Gesellschaft fuer Biotechnologische Forschung m.b.H.
(GBF), Germany
Ger. Offen., 16 pp.
CODEN: GWXXEX
Patent
German
1 INVENTOR(S): PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	PATENT NO.					D	DATE			APPL				DATE			
	DE 19638870				A1		1998						8870			9960923	
<					A1 19980402					WO 1	997-	199709					
<	W:	AL,	AM,	AT,	AU,	AZ,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CZ,	DE,	DK,	EE,
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							TR,										
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Tubulysin A (I), B (II), and C (III) are manufactured by culturing A.

AB Tubulysin A (I), B (II), and C (III) are manufactured by culturing A. gephyra isolated from a compost sample. Shake-culture of A. gephyra in a medium of single-cell protein preparation (Probion), yeast extract, glucose, etc., and chromatog. isolation of I, II, and III were shown. The physicochem. characteristics for these antimycotic and cytotoxic compds. were given. Also given was inhibition of fungus, and human and animal neoplastic cell lines with these Tubulysins.

IZ 205304-86-7P, Tubulysin A 205304-87-6P, Tubulysin B 205304-88-7P, Tubulysin A 205304-87, Tubulysin C RI: BFN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (antimycotic and cytostatic compds. manufacture with Archangium)

RN 205304-86-5 CAFLUS
CN Benzenepentanoic acid, γ-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-

ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued) [[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-oxopentyl][(3-methyl-1-oxobutoxy)methyl]amino]pentyl]-4-thiazolyl]carbonyl]amino]-4-hydroxy-a-methyl-, (aS,yR)-(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 1-A

Absolute stereochemistry.

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

 $\label{eq:continuous} \begin{tabular}{ll} 205304-88-7 & CAPLUS \\ Benzenepentanoic acid, $\gamma-[[[2-[(1R,3R)-1-(acetyloxy)-4-methyl-3-[[(2S,3S)-3-methyl-2-[[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-(2S,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-(2D,3S)-3-methyl-2-[[(2R)-1-methyl-2-piperidinyl]carbonyl]amino]-1-(2D,3S)-3-$

 $oxopentyl] \ [(1-oxopropoxy)methyl] amino] pentyl] - 4-thiazolyl] carbonyl] amino] - 4-hydroxy-\alpha-methyl-, (\alphaS, \gammaR) - (CA INDEX NAME)$

Absolute stereochemistry.

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